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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,602	11/09/2006	Ulrich Carlin Nielsen	SCAN1-41253	1498

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PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER	
LEE, LAURA MICHELLE	

ART UNIT	PAPER NUMBER
3724	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,602	NIELSEN, ULRICH CARLIN	
	Examiner	Art Unit	
	LAURA M. LEE	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-32 and 34-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-32 and 34-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/09/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on 6/18/2010, in which claims 22-32, 34-44 are pending, claims 43-44 are new, and claims 22, 36, 40, 41 are currently amended.

Claim Objections

2. Claim 22 is objected to because of the following informalities:

Claim 22, fourth to last line, "intro" should be -- into--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 26 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The applicant does not have possession of the combinations of claims 1 and 26 and also claims 41 and 36 as originally filed, for the step of determining a portion cutting

profile for the cutting up of the food items into strips and also quadratic pieces (claims 1 and 41) and then subsequently scanning the shape or the strip in a secondary cutting device (claims 26 and 36).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 22-32, 34-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demerin (U.S. Patent 3,841,186) in view of Wadell (U.S. Patent 5,186,089) and in further view of Kim et al. (U.S. Publication 2003/0145699), herein referred to as Kim. In regards to claims 22, 41, 43 and 44, Demerin discloses a method for portion cutting a food item comprising the steps of cutting the food (i.e. pork breast 46) into strips (with cutters Ca1-Ca4) and cutting the strips into substantially quadratic pieces of predetermined weight and/or dimension (same equal vol. or weight; see abstract, with cutters Cb1-Cbn), said second stage cutting said strips at a direction substantially perpendicular to the cutting performed at the first stage (fig.1). Dermerin does not disclose the steps of: scanning at least one of a shape, a structure, and/or a dimension of the food item at a first cutting stage by a measuring means; determining using a processor a portion-cutting profile in connection with said scanning; that the cutting of the food item into strips at the first cutting stage in accordance with said portion cutting

profile; wherein said step of determining a portion cutting profile comprises determining, in consideration of waste, a predetermined dimension and/or weight for the cutting-up of said food item into said strips and for the cutting up of strips into said substantially quadratic pieces, on the basis of said at least one of a shape, a structure and/or a dimension of said food item.

However, attention is directed to both the Wadell and Kim references. Wadell and Kim both disclose means of cutting foodstuffs into portions utilizing multiple cutting passes. Wadell discloses, like Demerin, the cutting of pork loin (10) which is similarly unsymmetrical at the ends into first strips and then into portions of the product. Wadell discloses first measuring the loin's thickness and length and calculates the section area and conicity of the loin and therefore the volume of each piece to be cut. Wadell then discloses moving that the computer adjusts the spacing of the strip cutting blades to adjust to there new calculated position. Wadell also discloses reorienting the strips into cutting positions for cutting the strips into portions but also discloses scanning the portions a second time before the second cutting sequence. Attention is also directed to the Kim reference. Kim discloses a means of portioning foodstuffs (i.e. meat, poultry or fish) in two or three dimensions by first generating a two or three dimensional map of the foodstuff by first scanning the foodstuff as similarly taught by Wadell. Kim discloses that either by assuming that a first dimension of the foodstuff (i.e. thickness) is fixed or by making a first cut to constrain an equal thickness of the foodstuff, that then the foodstuff may be cut into a predetermined width and length as defined by the scanned image (paragraph [0014]) or the foodstuff may be cut into several desired shapes with

multiple pass cuts thereby minimizing the waste of the trailing portions (paragraphs [0015 and 0019]). Therefore, as taught by both Wadell and Kim to be desirable to first scan and compute a best profile of the foodstuff or loin in order to maximize the generated food portions it would have been obvious to one having ordinary skill in the art at the time of the invention to have applied these teachings to the Demerin foodstuff cutting apparatus in order to determine the best positioning of the cutting blades to effect equal cut portions of the loin as necessitated by differences in the loins profile.

Therefore, the modified device of Demerin discloses the steps of: scanning (sensors 17 Wadell / step 112 Kim) at least one of a shape, a structure, and/or a dimension of the food item at a first cutting stage by a measuring means (col. 3, lines 10-18 Wadell / scanner 204 Kim); determining using a processor (computer), a portion-cutting profile in connection with said scanning (col. 3, lines 19-24 Wadell/ step 114 Kim); cutting the food item into strips at the first cutting stage in accordance with said portion cutting profile (same equal vol. or weight; see abstract, with cutters Cb1-Cbn Demerin / Wadell col. 3, lines 23-24; fig. 1); and cutting the strips into substantially quadratic pieces of predetermined weight and/or dimension at a second cutting stage (Demerin same equal vol. or weight; see abstract, with cutters Cb1-Cbn /Wadell cutting unit 38, Fig.4/ Kim paragraphs [0019 & 0067]), said second cutting stage cutting said strips at a direction substantially perpendicular to the cutting performed at the first stage (rotated by pin 33 Demerin); wherein said step of determining a portion cutting profile comprises determining, in consideration of waste minimization (as shown by movement of the blade; col. 3, lines 20-24 Wadell/ paragraph [0015] Kim), a predetermined

dimension and/or weight for the cutting-up of said food item into said strips and for the cutting up of strips into said substantially quadratic pieces (48 Demerin), on the basis of said at least one of a shape, a structure and/or a dimension (two/three dimensional model) of said food item.

In regards to claims 23 and 34, the modified device of Demerin discloses wherein said determining said portion-cutting profile comprises the step of planning the whole of a cutting sequence (Kim generate 3-d image; step 112).

In regards to claim 24 and 35, the modified device of Demerin discloses wherein at least a part of said portion cutting profile is carried out in said first cutting stage (same equal vol. or weight; see abstract, with cutters Cb1-Cbn Demerin / Wadell col. 3, lines 23-24; fig. 1/ Kim paragraphs [0019 & 0067]).

In regards to claim 25 and 38, the modified device of Demerin discloses feeding the item into a first cutting device (Cb1-Cbn Demerin), in which device the item is cut into strips (b1-b4) in a cutting unit (Demerin Fig. 1); transferring the strips from the first cutting device (A Demerin) to one or more additional cutting devices (B Demerin); and cutting in the one or more additional cutting devices, in which the strips are cut into pieces of predetermined shape (via movement of the cutters/ Wadell col. 3, lines 23-24; fig. 1).

As best understood, in regards to claim 26 and 36, the modified device of Demerin discloses wherein scanning of the shape, structure, and/or dimension of the strips is performed in the one or more additional cutting devices (Kim steps 102 or 112).

In regards to claim 27, the modified device of Demerin discloses wherein a feeding direction of said one or more additional cutting devices (B) is difference from that of said first cutting device (A; see Fig. 1).

In regards to claim 28 and 37, the modified device of Demerin discloses wherein at least a part of said portion cutting profile is communicated further to one or more of the additional cutting device (Kim step 124).

In regards to claim 29 and 42, the modified device of Demerin discloses wherein said second cutting stage is comprised of one or more cutting devices (Kim paragraph 0055).

In regards to claim 30 and 40, the modified device of Demerin discloses wherein a feeding direction for the one of more additional cutting devices lies substantially at right angles to a feeding direction for the first cutting device (fig. 1).

In regards to claim 31, the modified device of Demerin discloses the step of manually placing the food items in the first cutting device (A)(col. 6, lines 59-61 Demerin).

In regards to claim 32 and 39, the modified device of Demerin disclose the step of non-manually placing the food item in the first cutting device and/or non-manually transferring the strips to one or more of the additional cutting devices (conveyor 7/ pneumatic cylinder 33 Demerin).

Response to Arguments

7. Applicant is claiming cutting of the strips into substantially quadratic pieces and has set forth in their arguments that quadratic means cubic or rectangular. The examiner cannot find this definition in the original disclosure nor in the common English language to impart this meaning. Instead, the limitation of quadratic has been taken to mean any shape that can be bound by a quadratic equation, which broadly is any three dimensional shape. If applicant wishes for the limitation of quadratic to means either rectangular or cubic, they should amend the claims to recite those specific shapes.

Applicant's arguments with respect to claims 22-32, 34-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Examiner, Art Unit 3724
9/07/2010